California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

WESTERN GREBE *Aechmophorus occidentalis*
Family: PODICIPEDIDAE Order: PODICIPEDIFORMES Class: AVES
B010

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DISTRIBUTION, ABUNDANCE, SEASONALITY

Common to abundant October to May along entire coast in marine subtidal and estuarine waters. Uncommon to fairly common on large lakes near coast and inland at low elevations, and rare in Great Basin (Cogswell 1977, McCaskie et al. 1979). Nest on Modoc Plateau and south locally to Inyo Co. (Airola 1980). Also nest locally elsewhere, including Sacramento National Wildlife Refuge, Salton Sea, along the Colorado River and Sweetwater Reservoir (San Diego Co.) (Garrett and Dunn 1981). Breed on large, marshy lakes, normally deeper than required by eared grebe. In summer, uncommon along coast, and rare at large inland lakes, except near breeding colonies.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Obtain all food in water by diving and pursuing; usually in waters at least 1.3 m (4 ft) deep (Lawrence 1950), but often in shallower water in summer. Eat mostly fish, but also insects and other invertebrates, and rarely amphibians and plants. At Clear Lake, Lake Co., 27 stomachs contained 81% fish, 17% insects, and 2% plants; fish were 27-88 mm (1-3.5 in) long; amounts of insects eaten decreased from May to September (Lawrence 1950). As with other grebes, feathers eaten by adults and young, and accumulate in the stomach.

Cover: Rest on water, usually well offshore. Often dive to escape danger; longest recorded dive was 63 sec (Palmer 1962).

Reproduction: Require large, open waters for courtship, feeding, and flocking, and frequent extensive beds of tall, emergent vegetation such as tules or cattails for nesting. Nest platform built up from water bottom, or floats in water up to 3 m (10 ft) deep, usually near open water. Lindvall and Low (1982) were the first to report nests in open water, with no emergent vegetation. Of 386 nests in Utah, 41% were in shallow, open water, 200-800 m (660-2640 ft) from shore. Others mostly in open, emergent vegetation, but 5% were on immediate shoreline. Nero et al. (1958) also reported nests on dry land, up to 23 m (75 ft) from water, where water level had dropped just prior to nest building.

Water: No additional data found.

Pattern: For nesting, prefer large stands of tall, emergent vegetation adjacent to large lakes.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity, except most migration is at night. Commonly feed at night with broods.

Seasonal Movements/Migration: Breeders, concentrated mainly in northeastern California, mostly depart by late September and return in March, although a few remain in winter as long as there is open water. Frequent coast and some inland reservoirs (e.g., Lake Berryessa) October to May. It is not known what portions of winter populations breed in California.

Home Range: No information found.

Territory: Breeding territory includes only immediate vicinity of nest (Palmer 1962). At Eagle Lake, Lassen Co., Gould (1974) found a minimum distance between nests of 1.3 m (4 ft).

Reproduction: Courtship mainly April to May, and nests occupied May to August. Monogamous, colonial nesters; sometimes hundreds or even thousands of nests at a lake. Occasionally nest singly (Lindvall and Low 1982). Clutch usually 3-4 eggs, range 1-6, and replacement clutches common. Single-brooded. Incubation about 23 days. Precocial young tended by both parents until 4-5 weeks old and almost full-grown. In Utah, parents cared for young until late September (Lindvall and Low 1982). Age of first breeding not reported.

Niche: Destruction of wetlands and introduction of pesticides into watersheds are major causes of a continuing decline of numbers (Feerer and Garrett 1977). Lakeshore development near nesting colonies, and disturbance by boaters and fishermen, also detrimental (Gould 1974, Lederer 1976). Clark's grebe (A. clarkii) tends to feed farther from shore than western grebe (Neuchterlein and Buitron 1989). No other niche separation information found (Ehrlich et al. 1988).

Comments: "Light phase" individuals (black crown does not extend to eyes) recently separated into Clark's grebe species (A. clarkii; American Ornithologists' Union 1985). Requirements and life history of these 2 species, which occur together in mixed flocks, very similar; differences not documented except as noted (Ratti 1979, 1981, Neuchterlein 1981, Ehrlich et al. 1988, Storer and Neuchterlein 1992). Western grebe usually much more common throughout the sympatric range. About 88% of 2373 individuals observed in and near California in January 1977 were western grebes (Ratti 1981).

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